DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-000670 Address: 333 Burma Road **Date Inspected:** 20-Oct-2007

City: Oakland, CA 94607

OSM Arrival Time: 1300 **Project Name:** SAS Superstructure **OSM Departure Time:** 2330 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Sha Zhi **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** 89 Meter Mock-Up

Summary of Items Observed:

Tower Mock Up

This Quality Assurance (QA) Inspector observed ZPMC Welder, Han Xiaofeng, welder identification 054467 welding in the horizontal groove weld position (2G) on the 89 Meter Mock-Up, MUB MA-21 G/J on weld joints 71 and 72. Welding was being carried out to welding procedure specification (WPS) WPS-B-T-4312-TC-P4-1 using the Shield Metal Arc Welding (SMAW) process with 7018-1 electrode. The essential variables were checked by the Quality Control (QC) Inspector and the voltage was found to be 23.6, the amperage 178 and the travel speed 117 mm per minute. Preheat was measured and found to be 184 degrees Celsius (C).

This QA Inspector observed ZPMC Welders Wang Zhong Hua, welder identification 053753 and Dai Lu, welder identification 048659 welding in the flat (1G) groove weld position on the 89 Meter Mock-Up, MUB MA-21, SA24-1 to P913-1 and SA24-1 to P913-2. Welding was being carried out to WPS-B-T-3211-TC-U5B using the SMAW process with 9018M-H4R electrode on the root weld passes of the partial joint penetration (PJP) weld. The essential variables were checked by the QC Inspector and the voltage was found to be 24 &24.5, the amperage 268 & 270 and the travel speed 140 mm per minute. Preheat was measured and found to be 176 degrees Celsius (C).

This QA Inspector observed ZPMC Magnetic Particle Testing (MT) Technician, Cai xinxin examining of the PJP root welds, numbers 1 & 2, between longitudinal stiffener plate p531 and the 89 Meter skin "B" plate MA 24. Mr. Cai reported finding no relevant indication during the 100% testing and accepted the weld. 10% QA verification MT was conducted on the welds, for details see TL-6028 dated October 20, 2007.

WELDING INSPECTION REPORT

(Continued Page 2 of 2)





Summary of Conversations:

No significant conversatons held today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

| Inspected By: | Berger,Bruce | Quality Assurance Inspector |
|---------------|--------------|-----------------------------|
| Reviewed By: | Cochran,Jim | QA Reviewer |